

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 07/15/2008

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Nashville District; Oakley Land Co., LLC; LRN-2008-00889

C. PROJECT LOCATION AND BACKGROUND INFORMATION: Cox Creek Mile 0.2; Tennessee River Mile 255.0, Right Bank; Jackson Road, Florence, AL.

State: Alabama

County/parish/borough: Lauderdale County

City: Florence

Center coordinates of site (lat/long in degree decimal format): Lat. 34.8293637369195° **N**, Long. -87.6986177793343° **W**.

Universal Transverse Mercator: 16N

Name of nearest waterbody: Cox Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Cypress Creek

Name of watershed or Hydrologic Unit Code (HUC): 6030005

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: 07/15/2008

☒ Field Determination. Date(s): 07/09/2008

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

☐ Waters subject to the ebb and flow of the tide.

☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

☐ TNWs, including territorial seas

☐ Wetlands adjacent to TNWs

☒ Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs

☐ Non-RPWs that flow directly or indirectly into TNWs

☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs

☐ Impoundments of jurisdictional waters

☐ Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: 30 linear feet: 45 width (ft) and/or 0.03 acres.

Wetlands: acres.

c. Limits (boundaries) of jurisdiction based on: Established by OHWM.

Elevation of established OHWM (if known): 459.0.

2. Non-regulated waters/wetlands (check if applicable):³

☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.

Explain: .

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. **TNW**

Identify TNW: _____.

Summarize rationale supporting determination: _____.

2. **Wetland adjacent to TNW**

Summarize rationale supporting conclusion that wetland is “adjacent”: _____.

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are “relatively permanent waters” (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. **Characteristics of non-TNWs that flow directly or indirectly into TNW**

(i) **General Area Conditions:**

Watershed size: **Pick List**

Drainage area: **Pick List**

Average annual rainfall: _____ inches

Average annual snowfall: _____ inches

(ii) **Physical Characteristics:**

(a) **Relationship with TNW:**

☐ Tributary flows directly into TNW.

☐ Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.

Project waters are **Pick List** river miles from RPW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Project waters are **Pick List** aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: _____.

Identify flow route to TNW⁵: _____.

Tributary stream order, if known: _____.

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):

Average width: feet
Average depth: feet
Average side slopes: **Pick List**.

Primary tributary substrate composition (check all that apply):

<input type="checkbox"/> Silts	<input type="checkbox"/> Sands	<input type="checkbox"/> Concrete
<input type="checkbox"/> Cobbles	<input type="checkbox"/> Gravel	<input type="checkbox"/> Muck
<input type="checkbox"/> Bedrock	<input type="checkbox"/> Vegetation. Type/% cover:	
<input type="checkbox"/> Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: .

Presence of run/riffle/pool complexes. Explain: .

Tributary geometry: **Pick List**

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: **Pick List**

Estimate average number of flow events in review area/year: **Pick List**

Describe flow regime: .

Other information on duration and volume: .

Surface flow is: **Pick List**. Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

☐ Dye (or other) test performed: .

Tributary has (check all that apply):

<input type="checkbox"/> Bed and banks	
<input type="checkbox"/> OHWM ⁶ (check all indicators that apply):	
<input type="checkbox"/> clear, natural line impressed on the bank	<input type="checkbox"/> the presence of litter and debris
<input type="checkbox"/> changes in the character of soil	<input type="checkbox"/> destruction of terrestrial vegetation
<input type="checkbox"/> shelving	<input type="checkbox"/> the presence of wrack line
<input type="checkbox"/> vegetation matted down, bent, or absent	<input type="checkbox"/> sediment sorting
<input type="checkbox"/> leaf litter disturbed or washed away	<input type="checkbox"/> scour
<input type="checkbox"/> sediment deposition	<input type="checkbox"/> multiple observed or predicted flow events
<input type="checkbox"/> water staining	<input type="checkbox"/> abrupt change in plant community
<input type="checkbox"/> other (list):	
<input type="checkbox"/> Discontinuous OHWM. ⁷ Explain: .	

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

<input checked="" type="checkbox"/> High Tide Line indicated by:	<input checked="" type="checkbox"/> Mean High Water Mark indicated by:
<input type="checkbox"/> oil or scum line along shore objects	<input type="checkbox"/> survey to available datum;
<input type="checkbox"/> fine shell or debris deposits (foreshore)	<input type="checkbox"/> physical markings;
<input type="checkbox"/> physical markings/characteristics	<input type="checkbox"/> vegetation lines/changes in vegetation types.
<input type="checkbox"/> tidal gauges	
<input type="checkbox"/> other (list):	

(iii) **Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: .

Identify specific pollutants, if known: .

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☐ Habitat for:
 - ☐ Federally Listed species. Explain findings: .
 - ☐ Fish/spawn areas. Explain findings: .
 - ☐ Other environmentally-sensitive species. Explain findings: .
 - ☐ Aquatic/wildlife diversity. Explain findings: .

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: . acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is: **Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

☐ Directly abutting

☐ Not directly abutting

☐ Discrete wetland hydrologic connection. Explain: .

☐ Ecological connection. Explain: .

☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List**.

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

- ☐ Riparian buffer. Characteristics (type, average width): .
- ☐ Vegetation type/percent cover. Explain: .
- ☐ Habitat for:
 - ☐ Federally Listed species. Explain findings: .
 - ☐ Fish/spawn areas. Explain findings: .
 - ☐ Other environmentally-sensitive species. Explain findings: .
 - ☐ Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately () acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)

Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:

- ☐ TNWs: linear feet width (ft), Or, acres.
- ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**

- ☒ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: Observed water flow year round. Cox Creek has a drainage area of 16.8 square miles. It flows directly into Cypress Creek, a navigable water.
- ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☒ Tributary waters: **30** linear feet; **45** width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. Non-RPWs⁸ that flow directly or indirectly into TNWs.

- ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

- ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
☐ Wetlands directly abutting an RPW where tributaries typically flow “seasonally.” Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

- ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

- ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. Impoundments of jurisdictional waters.⁹

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- ☐ Demonstrate that impoundment was created from “waters of the U.S.,” or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

⁸See Footnote # 3.

⁹To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

Identify water body and summarize rationale supporting determination:

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
 Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
 ☐ Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Mr. Larry Lynn of White, Lynn, Collins and Associates, Inc., submitted on behalf of Oakley Land Co., LLC.
☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 ☐ Office concurs with data sheets/delineation report.
 ☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☒ Corps navigable waters' study: Navigable water as listed in Nashville District Public Notice #86-23, dated 8 May 1986.
☐ U.S. Geological Survey Hydrologic Atlas: .
 ☐ USGS NHD data.
 ☐ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: 1:24000; Florence, AL Quad.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation: Lauderdale County, AL; NRCS Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>.
☐ National wetlands inventory map(s). Cite name: .
☐ State/Local wetland inventory map(s): .
☒ FEMA/FIRM maps: City of Florence, Lauderdale County; Community Panel Numbers 010140 0006 C & 010140 0008 C; Revision Date: January 20, 1982.
☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
☒ Photographs: ☐ Aerial (Name & Date): .
 or ☒ Other (Name & Date): Digital photos taken during site visit on July 9, 2008.
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☒ Applicable/supporting scientific literature: Tennessee Valley Authority, Hydraulic Data Branch, Drainage Areas for Streams in Tennessee River Basin, March 1970, Report No. 0-5829-R-2; NC Division of Water Quality. 2005. Identification Methods for the Origins of Intermittent and Perennial Streams, Version 3.1. North Carolina Department of Environment and Natural Resources,

Division of Water Quality. Raleigh, NC. Effective Date: February 28, 2005; The Role of Headwater Streams in Downstream Water Quality, Journal of the American Water Resources Association (JAWRA), February 2007, Volume 43, No. 1, Pages 41-59.

☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: POC Gary Davis, Decatur AL Field Office, 256-350-5620.

**APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers**

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 18-Jul-2008

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Nashville District, LRN-2008-01100-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State :	AL -
	Alabama
County/parish/borough:	Madison
City:	Huntsville
Lat:	
Long:	
Universal Transverse Mercator:	[]
Name of nearest waterbody:	Dry Creek
Name of nearest Traditional Navigable Water (TNW):	Wheeler Lake
Name of watershed or Hydrologic Unit Code (HUC):	6030002

Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc.) are associated with the action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office Determination Date:	18-Jul-2008
Field Determination Date	08-Jan-2008
(s):	20-Feb-2008

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

There ☐ "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area.

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There ☐ "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area:¹

Water Name	Water Type(s) Present
Dry Creek	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs
Wetland B Adjacent Dry Creek	Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
Wetland C Adjacent Dry Creek	Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

b. Identify (estimate) size of waters of the U.S. in the review area:

Area: (m²)
Linear: (m)

c. Limits (boundaries) of jurisdiction:

based on: ☐
OHWM Elevation: (if known)

2. Non-regulated waters/wetlands:³

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

1.TNW
Not Applicable.

2. Wetland Adjacent to TNW
Not Applicable.

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: []
Drainage area: []
Average annual rainfall: inches
Average annual snowfall: inches

(ii) Physical Characteristics

(a) Relationship with TNW:

Tributary flows directly into TNW.
Tributary flows through [] tributaries before entering TNW.
:Number of tributaries

Project waters are [] river miles from TNW.
Project waters are [] river miles from RPW.
Project Waters are [] aerial (straight) miles from TNW.
Project waters are [] aerial(straight) miles from RPW.

Project waters cross or serve as state boundaries.
Explain:
Identify flow route to TNW:⁵

Tributary Stream Order, if known:

Order	Tributary Name
2	Dry Creek

(b) General Tributary Characteristics:

Tributary is:

Tributary Name	Natural	Artificial	Explain	Manipulated	Explain
Dry Creek	X	-	-	-	-

Tributary properties with respect to top of bank (estimate):

Tributary Name	Width (ft)	Depth (ft)	Side Slopes
Dry Creek	20	6	2:1

Primary tributary substrate composition:

Tributary Name	Silt	Sands	Concrete	Cobble	Gravel	Muck	Bedrock	Vegetation	Other
Dry Creek	X	-	-	-	X	-	-	-	-

Tributary (conditions, stability, presence, geometry, gradient):

Tributary Name	Condition\Stability	Run\Riffle\Pool Complexes	Geometry	Gradient (%)
Dry Creek	Stable	some, flat gradient	Meandering	.25

(c) Flow:

Tributary Name	Provides for	Events Per Year	Flow Regime	Duration & Volume
Dry Creek	Perennial flow	20 (or greater)	perennial	High flows in heavy rains. Mapped floodway and floodplain

Surface Flow is:

Tributary Name	Surface Flow	Characteristics
Dry Creek	Confined	Large, well defined channel

Subsurface Flow:

Tributary Name	Subsurface Flow	Explain Findings	Dye (or other) Test
Dry Creek	Unknown	-	-

Tributary has:

Tributary Name	Bed & Banks	OHW	Discontinuous OHW ⁷	Explain
Dry Creek	X	X	-	-

Tributaries with OHW⁶ - (as indicated above)

Tributary Name	OHW	Clear	Litter	Changes in Soil	Destruction Vegetation	Shelving	Wrack Line	Matted\Absent Vegetation	Sediment Sorting	Leaf Litter	Scour	Sediment Deposition	Flow Events	Water Staining	Changes Plant	Other
Dry Creek	X	X	-	-	-	-	-	X	X	X	X	X	X	-	-	-

If factors other than the OHW were used to determine lateral extent of CWA jurisdiction:**High Tide Line indicated by:**

Not Applicable.

Mean High Water Mark indicated by:

Not Applicable.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Tributary Name	Explain	Identify specific pollutants, if known
Dry Creek	Watershed developing but with some agricultural areas remaining.	-

(iv) Biological Characteristics. Channel supports:

Tributary Name	Riparian Corridor	Characteristics	Wetland Fringe	Characteristics	Habitat
Dry Creek	X	Varies, wooded	-	-	X

Habitat for: (as indicated above)

Tributary Name	Habitat	Federally Listed Species	Explain Findings	Fish\Spawn Areas	Explain Findings	Other Environmentally Sensitive Species	Explain Findings	Aquatic\Wildlife Diversity	Explain Findings
Dry Creek	X	-	-	X	-	-	-	X	-

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**(i) Physical Characteristics:****(a) General Wetland Characteristics:****Properties:**

Not Applicable.

(b) General Flow Relationship with Non-TNW:**Flow is:**

Not Applicable.

Surface flow is:

Not Applicable.

Subsurface flow:

Not Applicable.

(c) Wetland Adjacency Determination with Non-TNW:

Not Applicable.

(d) Proximity (Relationship) to TNW:

Not Applicable.

(ii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Not Applicable.

(iii) Biological Characteristics. Wetland supports:

Not Applicable.

3. Characteristics of all wetlands adjacent to the tributary (if any):**All wetlands being considered in the cumulative analysis:**

Wetland Name	Directly Abuts	Size (Area) (m ²)
Wetland B Adjacent Dry Creek	No	6839.18664
Wetland C Adjacent Dry Creek	No	27842.36928
Total:		34681.55592

Summarize overall biological, chemical and physical functions being performed:

Wetland Name	Functional Summary
Wetland B Adjacent Dry Creek	Wetland provides for floodwater storage in 100 year floodplain. Carbon input into Dry Creek for downstream waters. Habitat for wetland species adding to food source of Dry Creek and downstream waters.
Wetland C Adjacent Dry Creek	Floodwater storage in 100 year floodplain. Carbon input into Dry Creek. Wildlife habitat. low flow attenuation.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Significant Nexus: Not Applicable

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/ WETLANDS ARE:**1. TNWs and Adjacent Wetlands:**

Not Applicable.

2. RPWs that flow directly or indirectly into TNWs:

Wetland Name	Flow	Explain
Dry Creek	PERENNIAL	Large watershed, large stream channel, witnessed flow on multiple visits

Provide estimates for jurisdictional waters in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m²)
Dry Creek	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs	457.2	-
Total:		457.2	0

3. Non-RPWs that flow directly or indirectly into TNWs:⁸

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:

Not Applicable.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs:

Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m²)
Wetland B Adjacent Dry Creek	Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs	-	6839.18664
Wetland C Adjacent Dry Creek	Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs	-	27842.36928
Total:		0	34681.55592

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs:

Not Applicable.

Provide estimates for jurisdictional wetlands in the review area:

Not Applicable.

7. Impoundments of jurisdictional waters:⁹

Not Applicable.

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS:¹⁰

Not Applicable.

Identify water body and summarize rationale supporting determination:

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

F. NON-JURISDICTIONAL WATERS. INCLUDING WETLANDS

If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements:

Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce:

Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR):

Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (Explain):

Other (Explain):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (ie., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment:

Not Applicable.

Provide acreage estimates for non-jurisdictional waters in the review area, that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction.

Not Applicable.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD

(listed items shall be included in case file and, where checked and requested, appropriately reference below):

Data Reviewed	Source Label	Source Description
--Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant	-	-
--Data sheets prepared/submitted by or on behalf of the applicant/consultant	-	-
----Office concurs with data sheets/delineation report	-	-
--Corps navigable waters study	-	Nashville District Public Notice #86-23, dated 8 May 1986
--U.S. Geological Survey map(s).	-	Jeff, AL
--USDA Natural Resources Conservation Service Soil Survey.	-	NRCS soil survey
--FEMA/FIRM maps	-	-
--Photographs	-	-
----Aerial	-	-
----Other	-	-
--Previous determination(s).	-	LRN-2004-01296

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Not Applicable.

1-Boxes checked below shall be supported by completing the appropriate sections in Section III below.

2-For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

3-Supporting documentation is presented in Section III.F.

4-Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

5-Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

6-A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

7-Ibid.

8-See Footnote #3.

9 -To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

10-Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 17 July 2008

B. DISTRICT OFFICE: Nashville District

FILE NAME: Generic JD for All Section 10 Navigable Waters

FILE NUMBER: LRN-2008-01091 Jack Pirtle

C. PROJECT LOCATION AND BACKGROUND INFORMATION: The proposed project is located on a navigable water located within the regulatory jurisdiction of the Nashville District Corps of Engineers. The Nashville District has previously determined the extent of navigable waters within the drainage areas of the Tennessee and Cumberland Rivers located within the states of Tennessee, Kentucky, Alabama, and Mississippi. Posting of this JD establishes that the Corps has jurisdiction over navigable waters under Section 10 of the Rivers and Harbors Act of 1899 not only for this application but also for all future permit applications located on recognized navigable waters. Future permit applications will reference this generic JD which will eliminate the need to post separate JDs for each future application. Since jurisdiction over Section 10 navigable waters is straightforward, we have determined that it serves no useful purpose to perform and post a separate JD for each action. Development and posting of this generic JD will allow limited staff resources to be focused on other JDs that require more in-depth analysis. (Additionally, since a significant nexus determination and related factors are not required for this JD, non-relevant sections of the standard seven-page JD form have been eliminated in the interest of brevity and clarity.)

State: Tennessee

County: Van Buren

City: Rock Island

Center coordinates of site (lat/long in degree decimal format): Lat 35° 48' 5" **N**, Long. 85° 35' 39" **W**.

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Caney Fork River, Great Falls Lake

Name of watershed or Hydrologic Unit Code (HUC): 5130108

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., adjacent wetlands, offsite mitigation sites, disposal sites, etc) are associated with this action and recorded on a different JD form.

D. REVIEW PERFORMED FOR EVALUATION: Office (Desk) Determination. Date: 16 July 2008

SUMMARY OF FINDINGS

RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

☐ Waters subject to the ebb and flow of the tide.

☒ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain: Prior to the determination and listing of the Nashville District's navigable waters, detailed navigability studies were performed throughout the Nashville District to determine which waters meet the navigable waters definition found in 33 CFR Part 329. These studies are available for review in the Nashville District office. Upon completion of these navigability studies, the Nashville District issued Public Notice #86-23, dated 8 May 1986, listing all navigable waters within the district. The complete list of navigable waters can be found on the district's website at http://www.lrn.usace.army.mil/cof/navigable_waters_list.htm.

☒ Identify TNW: **Caney Fork River (Great Falls Lake).**

Summarize rationale supporting determination: .

DATA SOURCES

SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Location map submitted with application.

☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.

☐ Office concurs with data sheets/delineation report.

☐ Office does not concur with data sheets/delineation report.

☐ Data sheets prepared by the Corps: .

☒ Corps navigable waters' study: Navigable water as listed in Nashville District Public Notice #86-23, dated 8 May 1986.

☒ U.S. Geological Survey map(s). Cite scale & quad name: 1:24,000, Doyle, TN

☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .

☐ FEMA/FIRM maps: .

☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)

☒ Photographs: ☒ Aerial (Name & Date) ORTHO, 1994, Satellite image 2006:

or ☐ Other (Name & Date):

☐ Previous determination(s). File no. and date of response letter: .

☐ Applicable/supporting case law:

☐ Applicable/supporting scientific literature:

☐ Other information (please specify):

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 14 July 2008

B. DISTRICT OFFICE: Nashville District

FILE NAME: Generic JD for All Section 10 Navigable Waters

FILE NUMBER: LRN-2008-01035 Cherokee Cove Dock Association, Deadrick Brandon

C. PROJECT LOCATION AND BACKGROUND INFORMATION: The proposed project is located on a navigable water located within the regulatory jurisdiction of the Nashville District Corps of Engineers. The Nashville District has previously determined the extent of navigable waters within the drainage areas of the Tennessee and Cumberland Rivers located within the states of Tennessee, Kentucky, Alabama, and Mississippi. Posting of this JD establishes that the Corps has jurisdiction over navigable waters under Section 10 of the Rivers and Harbors Act of 1899 not only for this application but also for all future permit applications located on recognized navigable waters. Future permit applications will reference this generic JD which will eliminate the need to post separate JDs for each future application. Since jurisdiction over Section 10 navigable waters is straightforward, we have determined that it serves no useful purpose to perform and post a separate JD for each action. Development and posting of this generic JD will allow limited staff resources to be focused on other JDs that require more in-depth analysis. (Additionally, since a significant nexus determination and related factors are not required for this JD, non-relevant sections of the standard seven-page JD form have been eliminated in the interest of brevity and clarity.)

State: Tennessee

County: Sumner

City: Hendersonville

Center coordinates of site (lat/long in degree decimal format): Lat 36° 17' 26.5" **N**, Long. 86° 36' 11" **W**.

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Cumberland River, Old Hickory Lake

Name of watershed or Hydrologic Unit Code (HUC): 5130201

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., adjacent wetlands, offsite mitigation sites, disposal sites, etc) are associated with this action and recorded on a different JD form.

D. REVIEW PERFORMED FOR EVALUATION: Office (Desk) Determination. Date: 14 July 2008

SUMMARY OF FINDINGS

RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are** "*navigable waters of the U.S.*" within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

☐ Waters subject to the ebb and flow of the tide.

☒ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain: Prior to the determination and listing of the Nashville District's navigable waters, detailed navigability studies were performed throughout the Nashville District to determine which waters meet the navigable waters definition found in 33 CFR Part 329. These studies are available for review in the Nashville District office. Upon completion of these navigability studies, the Nashville District issued Public Notice #86-23, dated 8 May 1986, listing all navigable waters within the district. The complete list of navigable waters can be found on the district's website at http://www.lrn.usace.army.mil/cof/navigable_waters_list.htm.

☒ Identify TNW: **Cumberland River (Old Hickory Lake).**

Summarize rationale supporting determination: .

DATA SOURCES

SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Location map submitted with application.

☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.

☐ Office concurs with data sheets/delineation report.

☐ Office does not concur with data sheets/delineation report.

☐ Data sheets prepared by the Corps: .

☒ Corps navigable waters' study: Navigable water as listed in Nashville District Public Notice #86-23, dated 8 May 1986.

☒ U.S. Geological Survey map(s). Cite scale & quad name: 1:24K, Hendersonville, TN

☐ USDA Natural Resources Conservation Service Soil Survey. Citation: .

☐ FEMA/FIRM maps: .

☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)

☐ Photographs: ☒ Aerial (Name & Date): 2006 Sumner Co GIS

or ☐ Other (Name & Date):

☐ Previous determination(s). File no. and date of response letter: 47-24300, 28 January 1982.

☐ Applicable/supporting case law:

☐ Applicable/supporting scientific literature:

☐ Other information (please specify):

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 07/18/2008

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Nashville District; Gomez Land Investments, LLC; LRN-2008-00998

C. PROJECT LOCATION AND BACKGROUND INFORMATION: Wetland abutting Bartee Branch; Tennessee River Mile 332.2, Left Bank; U.S. Highway 231, Lacey Springs, AL

State: Alabama

County/parish/borough: Morgan

City: Lacey Springs

Center coordinates of site (lat/long in degree decimal format): Lat. 34.5553197773918° **N**, Long. -86.5850542850073° **W**.

Universal Transverse Mercator: 16N

Name of nearest waterbody: Bartee Branch

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Tennessee River (Wheeler Lake)

Name of watershed or Hydrologic Unit Code (HUC): 6030002

☐ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: 07/18/2008

☒ Field Determination. Date(s): 07/10/2008

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

☐ Waters subject to the ebb and flow of the tide.

☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

☐ TNWs, including territorial seas

☐ Wetlands adjacent to TNWs

☐ Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs

☐ Non-RPWs that flow directly or indirectly into TNWs

☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs

☐ Impoundments of jurisdictional waters

☐ Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: linear feet: width (ft) and/or acres.

Wetlands: 2 acres.

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual

Elevation of established OHWM (if known): .

2. Non-regulated waters/wetlands (check if applicable):³

☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.

Explain: .

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. **TNW**

Identify TNW: _____.

Summarize rationale supporting determination: _____.

2. **Wetland adjacent to TNW**

Summarize rationale supporting conclusion that wetland is “adjacent”: _____.

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are “relatively permanent waters” (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. **Characteristics of non-TNWs that flow directly or indirectly into TNW**

(i) **General Area Conditions:**

Watershed size: **Pick List**

Drainage area: **Pick List**

Average annual rainfall: _____ inches

Average annual snowfall: _____ inches

(ii) **Physical Characteristics:**

(a) **Relationship with TNW:**

☐ Tributary flows directly into TNW.

☐ Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.

Project waters are **Pick List** river miles from RPW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Project waters are **Pick List** aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: _____.

Identify flow route to TNW⁵: _____.

Tributary stream order, if known: _____.

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):

Average width: feet
Average depth: feet
Average side slopes: **Pick List**.

Primary tributary substrate composition (check all that apply):

<input type="checkbox"/> Silts	<input type="checkbox"/> Sands	<input type="checkbox"/> Concrete
<input type="checkbox"/> Cobbles	<input type="checkbox"/> Gravel	<input type="checkbox"/> Muck
<input type="checkbox"/> Bedrock	<input type="checkbox"/> Vegetation. Type/% cover:	
<input type="checkbox"/> Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: .

Presence of run/riffle/pool complexes. Explain: .

Tributary geometry: **Pick List**

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: **Pick List**

Estimate average number of flow events in review area/year: **Pick List**

Describe flow regime: .

Other information on duration and volume: .

Surface flow is: **Pick List**. Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

☐ Dye (or other) test performed: .

Tributary has (check all that apply):

<input type="checkbox"/> Bed and banks	
<input type="checkbox"/> OHWM ⁶ (check all indicators that apply):	
<input type="checkbox"/> clear, natural line impressed on the bank	<input type="checkbox"/> the presence of litter and debris
<input type="checkbox"/> changes in the character of soil	<input type="checkbox"/> destruction of terrestrial vegetation
<input type="checkbox"/> shelving	<input type="checkbox"/> the presence of wrack line
<input type="checkbox"/> vegetation matted down, bent, or absent	<input type="checkbox"/> sediment sorting
<input type="checkbox"/> leaf litter disturbed or washed away	<input type="checkbox"/> scour
<input type="checkbox"/> sediment deposition	<input type="checkbox"/> multiple observed or predicted flow events
<input type="checkbox"/> water staining	<input type="checkbox"/> abrupt change in plant community
<input type="checkbox"/> other (list):	
<input type="checkbox"/> Discontinuous OHWM. ⁷ Explain: .	

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

<input checked="" type="checkbox"/> High Tide Line indicated by:	<input checked="" type="checkbox"/> Mean High Water Mark indicated by:
<input type="checkbox"/> oil or scum line along shore objects	<input type="checkbox"/> survey to available datum;
<input type="checkbox"/> fine shell or debris deposits (foreshore)	<input type="checkbox"/> physical markings;
<input type="checkbox"/> physical markings/characteristics	<input type="checkbox"/> vegetation lines/changes in vegetation types.
<input type="checkbox"/> tidal gauges	
<input type="checkbox"/> other (list):	

(iii) **Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: .

Identify specific pollutants, if known: .

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☐ Habitat for:
 - ☐ Federally Listed species. Explain findings: .
 - ☐ Fish/spawn areas. Explain findings: .
 - ☐ Other environmentally-sensitive species. Explain findings: .
 - ☐ Aquatic/wildlife diversity. Explain findings: .

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: . acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is: **Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

☐ Directly abutting

☐ Not directly abutting

☐ Discrete wetland hydrologic connection. Explain: .

☐ Ecological connection. Explain: .

☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List**.

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

- ☐ Riparian buffer. Characteristics (type, average width): .
- ☐ Vegetation type/percent cover. Explain: .
- ☐ Habitat for:
 - ☐ Federally Listed species. Explain findings: .
 - ☐ Fish/spawn areas. Explain findings: .
 - ☐ Other environmentally-sensitive species. Explain findings: .
 - ☐ Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately () acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)

Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:

- ☐ TNWs: linear feet width (ft), Or, acres.
- ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**

- ☒ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: Observed water in channel throughout the year and during drought conditions. The culvert under U.S. Highway 231 allows for water flow and aquatic life movement. Observed minnows around the culvert and in the wetland during my site visit on July 10, 2008. Aquatic life is an indicator of perennial waters.
- ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. **Non-RPWs⁸ that flow directly or indirectly into TNWs.**

- ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. **Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☒ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☒ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: **Observed continuous water connection from wetland to Bartee Branch. Observed minnows in wetland. The culvert under U.S. Highway 231 allows for aquatic life movement from Bartee Branch to wetland.**
☐ Wetlands directly abutting an RPW where tributaries typically flow “seasonally.” Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: **2** acres.

5. **Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.**

- ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. **Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.**

- ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. **Impoundments of jurisdictional waters.⁹**

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- ☐ Demonstrate that impoundment was created from “waters of the U.S.,” or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. **ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰**

- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.

⁸See Footnote # 3.

⁹To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰**Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.**

- ☐ Interstate isolated waters. Explain: .
- ☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
- Identify type(s) of waters: .
- ☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
- ☐ Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- ☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
- ☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Plat submitted by Mr. Ronnie Looser, ERA-Ben Porter Realty.
- ☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
- ☐ Office concurs with data sheets/delineation report.
- ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps: .
- ☒ Corps navigable waters' study: Navigable water as listed in Nashville District Public Notice #86-23, dated 8 May 1986.
- ☐ U.S. Geological Survey Hydrologic Atlas: .
- ☐ USGS NHD data.
- ☐ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name: 1:24000; Farley, AL Quad.
- ☒ USDA Natural Resources Conservation Service Soil Survey. Citation: Morgan County, AL; NRCS Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>.
- ☐ National wetlands inventory map(s). Cite name: .
- ☐ State/Local wetland inventory map(s): .
- ☒ FEMA/FIRM maps: Morgan County, Alabama and Unincorporated Areas; Map Number 01103C0175 D; Effective Date May 2, 1999.
- ☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): Microsoft Virtual Earth, Aerials Express 2008.
- or ☒ Other (Name & Date): Digital photos taken during site visit on July 10, 2008.
- ☐ Previous determination(s). File no. and date of response letter: .
- ☐ Applicable/supporting case law: .

- ☒ Applicable/supporting scientific literature: Tennessee Valley Authority, Hydraulic Data Branch, Drainage Areas for Streams in Tennessee River Basin, March 1970, Report No. 0-5829-R-2; NC Division of Water Quality. 2005. Identification Methods for the Origins of Intermittent and Perennial Streams, Version 3.1. North Carolina Department of Environment and Natural Resources, Division of Water Quality. Raleigh, NC. Effective Date: February 28, 2005; The Role of Headwater Streams in Downstream Water Quality, Journal of the American Water Resources Association (JAWRA), February 2007, Volume 43, No. 1, Pages 41-59.
- ☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: POC Gary Davis, Decatur AL Field Office, 256-350-5620.

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 07/14/2008

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Nashville District; Enbridge Pipeline; LRN-2008-00829

C. PROJECT LOCATION AND BACKGROUND INFORMATION: Hazard Branch Mile 1.9, Crossing; Tennessee-Tombigbee Mile 436.3 Left Bank

State: Mississippi County/parish/borough: Tishomingo City: Iuka
Center coordinates of site (lat/long in degree decimal format): Lat. 34.8271109292013° **N**, Long. -88.2559613849116° **W**.
Universal Transverse Mercator: 16N

Name of nearest waterbody: Hazard Branch

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Tennessee-Tombigbee Waterway

Name of watershed or Hydrologic Unit Code (HUC): 6030005

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: 07/14/2008

☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

☐ Waters subject to the ebb and flow of the tide.

☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

☐ TNWs, including territorial seas

☐ Wetlands adjacent to TNWs

☒ Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs

☐ Non-RPWs that flow directly or indirectly into TNWs

☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs

☐ Impoundments of jurisdictional waters

☐ Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: 240 linear feet: 20 width (ft) and/or acres.

Wetlands: acres.

c. Limits (boundaries) of jurisdiction based on: Established by OHWM.

Elevation of established OHWM (if known): .

2. Non-regulated waters/wetlands (check if applicable):³

☐ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.

Explain: .

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. **TNW**

Identify TNW: _____.

Summarize rationale supporting determination: _____.

2. **Wetland adjacent to TNW**

Summarize rationale supporting conclusion that wetland is “adjacent”: _____.

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are “relatively permanent waters” (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. **Characteristics of non-TNWs that flow directly or indirectly into TNW**

(i) **General Area Conditions:**

Watershed size: **Pick List**

Drainage area: **Pick List**

Average annual rainfall: _____ inches

Average annual snowfall: _____ inches

(ii) **Physical Characteristics:**

(a) **Relationship with TNW:**

☐ Tributary flows directly into TNW.

☐ Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.

Project waters are **Pick List** river miles from RPW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Project waters are **Pick List** aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: _____.

Identify flow route to TNW⁵: _____.

Tributary stream order, if known: _____.

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):

Average width: feet
Average depth: feet
Average side slopes: **Pick List**.

Primary tributary substrate composition (check all that apply):

☐ Silts ☐ Sands ☐ Concrete
☐ Cobbles ☐ Gravel ☐ Muck
☐ Bedrock ☐ Vegetation. Type/% cover:
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: .

Presence of run/riffle/pool complexes. Explain: .

Tributary geometry: Pick List

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: Pick List

Estimate average number of flow events in review area/year: Pick List

Describe flow regime: .

Other information on duration and volume: .

Surface flow is: Pick List. Characteristics: .

Subsurface flow: Pick List. Explain findings: .

☐ Dye (or other) test performed: .

Tributary has (check all that apply):

☐ Bed and banks
☐ OHWM⁶ (check all indicators that apply):
☐ clear, natural line impressed on the bank ☐ the presence of litter and debris
☐ changes in the character of soil ☐ destruction of terrestrial vegetation
☐ shelving ☐ the presence of wrack line
☐ vegetation matted down, bent, or absent ☐ sediment sorting
☐ leaf litter disturbed or washed away ☐ scour
☐ sediment deposition ☐ multiple observed or predicted flow events
☐ water staining ☐ abrupt change in plant community
☐ other (list):
☐ Discontinuous OHWM.⁷ Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☐ High Tide Line indicated by: ☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects ☐ survey to available datum;
☐ fine shell or debris deposits (foreshore) ☐ physical markings;
☐ physical markings/characteristics ☐ vegetation lines/changes in vegetation types.
☐ tidal gauges
☐ other (list):

(iii) **Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: .

Identify specific pollutants, if known: .

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☐ Habitat for:
 - ☐ Federally Listed species. Explain findings: .
 - ☐ Fish/spawn areas. Explain findings: .
 - ☐ Other environmentally-sensitive species. Explain findings: .
 - ☐ Aquatic/wildlife diversity. Explain findings: .

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: . acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is: **Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

☐ Directly abutting

☐ Not directly abutting

☐ Discrete wetland hydrologic connection. Explain: .

☐ Ecological connection. Explain: .

☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List**.

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

- ☐ Riparian buffer. Characteristics (type, average width): .
- ☐ Vegetation type/percent cover. Explain: .
- ☐ Habitat for:
 - ☐ Federally Listed species. Explain findings: .
 - ☐ Fish/spawn areas. Explain findings: .
 - ☐ Other environmentally-sensitive species. Explain findings: .
 - ☐ Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately () acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)

Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:

- ☐ TNWs: linear feet width (ft), Or, acres.
- ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**

- ☒ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: Observed water flows year round.
- ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☒ Tributary waters: **240** linear feet; **20** width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. Non-RPWs⁸ that flow directly or indirectly into TNWs.

- ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

- ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
☐ Wetlands directly abutting an RPW where tributaries typically flow “seasonally.” Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

- ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

- ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. Impoundments of jurisdictional waters.⁹

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- ☐ Demonstrate that impoundment was created from “waters of the U.S.,” or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

⁸See Footnote # 3.

⁹To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .
☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
☐ Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
☐ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
☐ Lakes/ponds: acres.
☐ Other non-wetland waters: acres. List type of aquatic resource: .
☐ Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Submar, Inc, Ray Moore.
☐ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
☐ Office concurs with data sheets/delineation report.
☐ Office does not concur with data sheets/delineation report.
☐ Data sheets prepared by the Corps: .
☒ Corps navigable waters' study: Navigable water as listed in Nashville District Public Notice #86-23, dated 8 May 1986.
☐ U.S. Geological Survey Hydrologic Atlas: .
☐ USGS NHD data.
☐ USGS 8 and 12 digit HUC maps.
☒ U.S. Geological Survey map(s). Cite scale & quad name: 1:24000; Burnsville, MS Quad.
☐ USDA Natural Resources Conservation Service Soil Survey. Citation: Tishomingo County, MS; NRCS Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>.
☐ National wetlands inventory map(s). Cite name: .
☐ State/Local wetland inventory map(s): .
☐ FEMA/FIRM maps: .
☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
☐ Photographs: ☐ Aerial (Name & Date): .
or ☐ Other (Name & Date): .
☐ Previous determination(s). File no. and date of response letter: .
☐ Applicable/supporting case law: .
☒ Applicable/supporting scientific literature: Tennessee Valley Authority, Hydraulic Data Branch, Drainage Areas for Streams in Tennessee River Basin, March 1970, Report No. 0-5829-R-2; NC Division of Water Quality. 2005. Identification Methods for the Origins of Intermittent and Perennial Streams, Version 3.1. North Carolina Department of Environment and Natural Resources, Division of Water Quality. Raleigh, NC. Effective Date: February 28, 2005; The Role of Headwater Streams in Downstream Water Quality, Journal of the American Water Resources Association (JAWRA), February 2007, Volume 43, No. 1, Pages 41-59.
☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: .

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 14-Jul-2008

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Nashville District, LRN-2008-00527-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State : AL -
Alabama
County/parish/borough: Madison
City:
Lat:
Long:
Universal Transverse Mercator: []
Name of nearest waterbody: Dry Creek
Name of nearest Traditional Navigable Water (TNW): Wheeler Lake
Name of watershed or Hydrologic Unit Code (HUC): 6030002

Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc.) are associated with the action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office Determination Date: 14-Jul-2008
Field Determination Date: 24-Apr-2008
(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

There ☐ "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area.

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There ☐ "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

1. Waters of the U.S.**a. Indicate presence of waters of U.S. in review area:¹**

Water Name	Water Type(s) Present
Upland Ditch	Uplands

b. Identify (estimate) size of waters of the U.S. in the review area:Area: (m²)

Linear: (m)

c. Limits (boundaries) of jurisdiction:based on: ☐

OHWM Elevation: (if known)

2. Non-regulated waters/wetlands:³

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: USGS quad map indicated a "blue-line stream" on the property but a site visit revealed the drainage feature did not contain the ordinary high water mark necessary to be considered a water of the U.S.

SECTION III: CWA ANALYSIS**A. TNWs AND WETLANDS ADJACENT TO TNWs****1. TNW**

Not Applicable.

2. Wetland Adjacent to TNW

Not Applicable.

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):**1. Characteristics of non-TNWs that flow directly or indirectly into TNW****(i) General Area Conditions:**Watershed size: ☐Drainage area: ☐

Average annual rainfall: inches

Average annual snowfall: inches

(ii) Physical Characteristics**(a) Relationship with TNW:**

Tributary flows directly into TNW.

Tributary flows through ☐ tributaries before entering TNW.

:Number of tributaries

Project waters are ☐ river miles from TNW.Project waters are ☐ river miles from RPW.Project Waters are ☐ aerial (straight) miles from TNW.Project waters are ☐ aerial(straight) miles from RPW.

Project waters cross or serve as state boundaries.

Explain:

Identify flow route to TNW:⁵**Tributary Stream Order, if known:**

Not Applicable.

(b) General Tributary Characteristics:

Tributary is:

Not Applicable.

Tributary properties with respect to top of bank (estimate):

Not Applicable.

Primary tributary substrate composition:

Not Applicable.

Tributary (conditions, stability, presence, geometry, gradient):

Not Applicable.

(c) Flow:

Not Applicable.

Surface Flow is:

Not Applicable.

Subsurface Flow:

Not Applicable.

Tributary has:

Not Applicable.

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction:

High Tide Line indicated by:

Not Applicable.

Mean High Water Mark indicated by:

Not Applicable.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Not Applicable.

(iv) Biological Characteristics. Channel supports:

Not Applicable.

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Not Applicable.

(b) General Flow Relationship with Non-TNW:

Flow is:

Not Applicable.

Surface flow is:

Not Applicable.

Subsurface flow:

Not Applicable.

(c) Wetland Adjacency Determination with Non-TNW:

Not Applicable.

(d) Proximity (Relationship) to TNW:

Not Applicable.

(ii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Not Applicable.

(iii) Biological Characteristics. Wetland supports:

Not Applicable.

3. Characteristics of all wetlands adjacent to the tributary (if any):

All wetlands being considered in the cumulative analysis:

Not Applicable.

Summarize overall biological, chemical and physical functions being performed:

Not Applicable.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW.

Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Significant Nexus: Not Applicable

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/ WETLANDS ARE:

1. TNWs and Adjacent Wetlands:

Not Applicable.

2. RPWs that flow directly or indirectly into TNWs:

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

3. Non-RPWs that flow directly or indirectly into TNWs:⁸

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:

Not Applicable.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs:

Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:

Not Applicable.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs:

Not Applicable.

Provide estimates for jurisdictional wetlands in the review area:

Not Applicable.

7. Impoundments of jurisdictional waters:⁹

Not Applicable.

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS:¹⁰

Not Applicable.

Identify water body and summarize rationale supporting determination:

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

F. NON-JURISDICTIONAL WATERS. INCLUDING WETLANDS

If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements:

Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce:

Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR):

Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (Explain):

Other (Explain):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (ie., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment:

Not Applicable.

Provide acreage estimates for non-jurisdictional waters in the review area, that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction.

Not Applicable.

SECTION IV: DATA SOURCES.**A. SUPPORTING DATA. Data reviewed for JD**

(listed items shall be included in case file and, where checked and requested, appropriately reference below):

Data Reviewed	Source Label	Source Description
--Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant	-	-
--U.S. Geological Survey map(s).	-	Jeff, AL
--Photographs	-	-
----Other	-	site visit on 4-24-08

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Not Applicable.

- 1-Boxes checked below shall be supported by completing the appropriate sections in Section III below.
- 2-For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
- 3-Supporting documentation is presented in Section III.F.
- 4-Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
- 5-Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
- 6-A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
- 7-Ibid.
- 8-See Footnote #3.
- 9 -To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
- 10-Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

APPROVED JURISDICTIONAL DETERMINATION FORM U.S. Army Corps of Engineers

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 14-Jul-2008

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Nashville District, LRN-2006-00144-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State : AL - Alabama
 County/parish/borough: Madison
 City: Huntsville
 Lat:
 Long:
 Universal Transverse Mercator: []
 Name of nearest waterbody: Unnamed tributary of Betts Spring Branch
 Name of nearest Traditional Navigable Water (TNW):
 Name of watershed or Hydrologic Unit Code (HUC): 6030002

Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc.) are associated with the action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office Determination Date: 14-Jul-2008
 Field Determination Date (s): 17-Apr-2008

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

There ☐ "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area.

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There ☐ "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

1. Waters of the U.S.**a. Indicate presence of waters of U.S. in review area:¹**

Water Name	Water Type(s) Present
"Blue-line Stream"	Uplands

b. Identify (estimate) size of waters of the U.S. in the review area:Area: (m²)

Linear: (m)

c. Limits (boundaries) of jurisdiction:based on: ☐

OHWM Elevation: (if known)

2. Non-regulated waters/wetlands:³

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: USGS map indicates a "blue-line stream" on the northeastern side of the property. However, the drainage feature does not contain an ordinary high water mark necessary to be considered a water of the U.S.

SECTION III: CWA ANALYSIS**A. TNWs AND WETLANDS ADJACENT TO TNWs****1.TNW**

Not Applicable.

2. Wetland Adjacent to TNW

Not Applicable.

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):**1. Characteristics of non-TNWs that flow directly or indirectly into TNW****(i) General Area Conditions:**Watershed size: ☐Drainage area: ☐

Average annual rainfall: inches

Average annual snowfall: inches

(ii) Physical Characteristics**(a) Relationship with TNW:**

Tributary flows directly into TNW.

Tributary flows through ☐ tributaries before entering TNW.

:Number of tributaries

Project waters are ☐ river miles from TNW.Project waters are ☐ river miles from RPW.Project Waters are ☐ aerial (straight) miles from TNW.Project waters are ☐ aerial(straight) miles from RPW.

Project waters cross or serve as state boundaries.

Explain:

Identify flow route to TNW:⁵**Tributary Stream Order, if known:**

Not Applicable.

(b) General Tributary Characteristics:

Tributary is:

Not Applicable.

Tributary properties with respect to top of bank (estimate):

Not Applicable.

Primary tributary substrate composition:

Not Applicable.

Tributary (conditions, stability, presence, geometry, gradient):

Not Applicable.

(c) Flow:

Not Applicable.

Surface Flow is:

Not Applicable.

Subsurface Flow:

Not Applicable.

Tributary has:

Not Applicable.

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction:

High Tide Line indicated by:

Not Applicable.

Mean High Water Mark indicated by:

Not Applicable.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Not Applicable.

(iv) Biological Characteristics. Channel supports:

Not Applicable.

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Not Applicable.

(b) General Flow Relationship with Non-TNW:

Flow is:

Not Applicable.

Surface flow is:

Not Applicable.

Subsurface flow:

Not Applicable.

(c) Wetland Adjacency Determination with Non-TNW:

Not Applicable.

(d) Proximity (Relationship) to TNW:

Not Applicable.

(ii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Not Applicable.

(iii) Biological Characteristics. Wetland supports:

Not Applicable.

3. Characteristics of all wetlands adjacent to the tributary (if any):

All wetlands being considered in the cumulative analysis:

Not Applicable.

Summarize overall biological, chemical and physical functions being performed:

Not Applicable.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW.

Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Significant Nexus: Not Applicable

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/ WETLANDS ARE:**1. TNWs and Adjacent Wetlands:**

Not Applicable.

2. RPWs that flow directly or indirectly into TNWs:

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

3. Non-RPWs that flow directly or indirectly into TNWs:⁸

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:

Not Applicable.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs:

Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:

Not Applicable.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs:

Not Applicable.

Provide estimates for jurisdictional wetlands in the review area:

Not Applicable.

7. Impoundments of jurisdictional waters:⁹

Not Applicable.

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS:¹⁰

Not Applicable.

Identify water body and summarize rationale supporting determination:

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

F. NON-JURISDICTIONAL WATERS. INCLUDING WETLANDS

If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements:

Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce:

Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR):

Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (Explain):

Other (Explain):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (ie., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment:

Not Applicable.

Provide acreage estimates for non-jurisdictional waters in the review area, that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction.

Not Applicable.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD

(listed items shall be included in case file and, where checked and requested, appropriately reference below):

Data Reviewed	Source Label	Source Description
--Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant	-	-
--Data sheets prepared/submitted by or on behalf of the applicant/consultant	-	-
----Office concurs with data sheets/delineation report	-	-
--U.S. Geological Survey map(s).	-	Madison, AL
--USDA Natural Resources Conservation Service Soil Survey.	-	NRCS soil survey for Madison County, AL
--FEMA/FIRM maps	-	within 100 year flood plain
--Photographs	-	-
----Other	-	site visit on 4-17-08

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Not Applicable.

-
- 1-Boxes checked below shall be supported by completing the appropriate sections in Section III below.
 - 2-For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
 - 3-Supporting documentation is presented in Section III.F.
 - 4-Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
 - 5-Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
 - 6-A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
 - 7-Ibid.
 - 8-See Footnote #3.
 - 9 -To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
 - 10-Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

**APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers**

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 14-Jul-2008

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Nashville District, LRN-2006-00144-JD2

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State : AL - Alabama
County/parish/borough: Madison
City: Huntsville
Lat:
Long:
Universal Transverse Mercator: []
Name of nearest waterbody: Unnamed tributary of Betts Spring Branch
Name of nearest Traditional Navigable Water (TNW):
Name of watershed or Hydrologic Unit Code (HUC): 6030002

Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc.) are associated with the action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office Determination Date: 14-Jul-2008

Field Determination Date: 17-Apr-2008
(s): 02-Jul-2008
07-Jul-2008

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

There ☐ "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area.

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There ☐ "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area:¹

Water Name	Water Type(s) Present
Unnamed Tributary of Betts Spring Branch	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs
Williams Pond	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs

b. Identify (estimate) size of waters of the U.S. in the review area:

Area: (m²)

Linear: (m)

c. Limits (boundaries) of jurisdiction:

based on: ☐

OHWM Elevation: (if known)

2. Non-regulated waters/wetlands:³

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

1.TNW

Not Applicable.

2. Wetland Adjacent to TNW

Not Applicable.

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: 27.6 square miles
Drainage area: 330 acres
Average annual rainfall: 54 inches
Average annual snowfall: 3 inches

(ii) Physical Characteristics

(a) Relationship with TNW:

Tributary flows directly into TNW.
Tributary flows through [] tributaries before entering TNW.
:Number of tributaries

Project waters are 2-5 river miles from TNW.
Project waters are 1 (or less) river miles from RPW.
Project Waters are 2-5 aerial (straight) miles from TNW.
Project waters are 1 (or less) aerial(straight) miles from RPW.

Project waters cross or serve as state boundaries.

Explain:
no

Identify flow route to TNW:⁵
Unnamed tributary flows through Betts Spring Branch and Barren Fork Creek that becomes Wheeler Lake

Tributary Stream Order, if known:

Order	Tributary Name
1	Williams Pond
1	Unnamed Tributary of Betts Spring Branch

(b) General Tributary Characteristics:**Tributary is:**

Tributary Name	Natural	Artificial	Explain	Manipulated	Explain
Unnamed Tributary of Betts Spring Branch	-	-	-	X	channelized years ago
Williams Pond	-	-	-	X	some of original pond has been filled

Tributary properties with respect to top of bank (estimate):

Tributary Name	Width (ft)	Depth (ft)	Side Slopes
Unnamed Tributary of Betts Spring Branch	15	6	2:1
Williams Pond	200	500	2:1

Primary tributary substrate composition:

Tributary Name	Silt	Sands	Concrete	Cobble	Gravel	Muck	Bedrock	Vegetation	Other
Unnamed Tributary of Betts Spring Branch	X	-	-	-	-	-	-	-	-
Williams Pond	X	-	-	-	-	-	-	-	-

Tributary (conditions, stability, presence, geometry, gradient):

Tributary Name	Condition\Stability	Run\Riffle\Pool Complexes	Geometry	Gradient (%)
Unnamed Tributary of Betts Spring Branch	stable	no	Relatively straight	.0667
Williams Pond	stable	no	-	-

(c) Flow:

Tributary Name	Provides for	Events Per Year	Flow Regime	Duration & Volume
Unnamed Tributary of Betts Spring Branch	Seasonal flow	20 (or greater)	wet months and following rain events year round	-
Williams Pond	Seasonal flow	20 (or greater)	pond - standing water with outflow seasonally and following rains	-

Surface Flow is:

Tributary Name	Surface Flow	Characteristics
Unnamed Tributary of Betts Spring Branch	Confined	-
Williams Pond	Confined	-

Subsurface Flow:

Tributary Name	Subsurface Flow	Explain Findings	Dye (or other) Test
Unnamed Tributary of Betts Spring Branch	Unknown	-	-
Williams Pond	Unknown	-	-

Tributary has:

Tributary Name	Bed & Banks	OHWM	Discontinuous OHWM ⁷	Explain
Unnamed Tributary of Betts Spring Branch	X	X	-	-
Williams Pond	X	X	-	-

Tributaries with OHWM⁶ - (as indicated above)

Tributary Name	OHWM	Clear	Litter	Changes in Soil	Destruction Vegetation	Shelving	Wrack Line	Matted/Absent Vegetation	Sediment Sorting	Leaf Litter	Scour	Sediment Deposition	Flow Events	Water Staining	Changes Plant	Other
Unnamed Tributary of Betts Spring Branch	X	X	-	-	X	-	-	X	-	X	X	X	X	-	-	-
Williams Pond	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction:

High Tide Line indicated by:

Not Applicable.

Mean High Water Mark indicated by:

Not Applicable.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Tributary Name	Explain	Identify specific pollutants, if known
Unnamed Tributary of Betts Spring Branch	dry during inspection	-
Williams Pond	water color turbid.	-

(iv) Biological Characteristics. Channel supports:

Tributary Name	Riparian Corridor	Characteristics	Wetland Fringe	Characteristics	Habitat
Unnamed Tributary of Betts Spring Branch	X	narrow wooded	-	-	X
Williams Pond	-	-	-	-	X

Habitat for: (as indicated above)

Tributary Name	Habitat	Federally Listed Species	Explain Findings	Fish\Spawn Areas	Explain Findings	Other Environmentally Sensitive Species	Explain Findings	Aquatic\Wildlife Diversity	Explain Findings
Unnamed Tributary of Betts Spring Branch	X	-	-	-	-	-	-	X	amphibians and reptiles
Williams Pond	X	-	-	-	-	-	-	X	amphibians and reptiles

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**(i) Physical Characteristics:****(a) General Wetland Characteristics:****Properties:**

Not Applicable.

(b) General Flow Relationship with Non-TNW:**Flow is:**

Not Applicable.

Surface flow is:

Not Applicable.

Subsurface flow:

Not Applicable.

(c) Wetland Adjacency Determination with Non-TNW:

Not Applicable.

(d) Proximity (Relationship) to TNW:

Not Applicable.

(ii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Not Applicable.

(iii) Biological Characteristics. Wetland supports:

Not Applicable.

3. Characteristics of all wetlands adjacent to the tributary (if any):**All wetlands being considered in the cumulative analysis:**

Not Applicable.

Summarize overall biological, chemical and physical functions being performed:

Not Applicable.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Findings for: Unnamed Tributary of Betts Spring Branch, Williams Pond

The pond and stream collects runoff from a rapidly developing area and a portion of a military base, Redstone Arsenal. The pond and stream are within the 100 year flood plain and help store floodwaters of the TNW. The pond helps to buffer runoff to downstream waters.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/ WETLANDS ARE:

1. TNWs and Adjacent Wetlands:

Not Applicable.

2. RPWs that flow directly or indirectly into TNWs:

Wetland Name	Flow	Explain
Unnamed Tributary of Betts Spring Branch	SEASONAL	connection to Williams pond
Williams Pond	SEASONAL	site visits reveal this, water standing most of year

Provide estimates for jurisdictional waters in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
Unnamed Tributary of Betts Spring Branch	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs	701.04	-
Williams Pond	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs	-	10117.14
Total:		701.04	10117.14

3. Non-RPWs that flow directly or indirectly into TNWs:⁸

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:

Not Applicable.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs:

Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:

Not Applicable.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs:

Not Applicable.

Provide estimates for jurisdictional wetlands in the review area:

Not Applicable.

7. Impoundments of jurisdictional waters:⁹

Not Applicable.

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS:¹⁰

Not Applicable.

Identify water body and summarize rationale supporting determination:

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

F. NON-JURISDICTIONAL WATERS. INCLUDING WETLANDS

If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements:

Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce:

Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR):

Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (Explain):

Other (Explain):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (ie., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment:

Not Applicable.

Provide acreage estimates for non-jurisdictional waters in the review area, that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction.

Not Applicable.

SECTION IV: DATA SOURCES.**A. SUPPORTING DATA. Data reviewed for JD**

(listed items shall be included in case file and, where checked and requested, appropriately reference below):

Data Reviewed	Source Label	Source Description
--Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant	-	-
--Data sheets prepared/submitted by or on behalf of the applicant/consultant	-	-
----Office concurs with data sheets/delineation report	-	-
--Corps navigable waters study	-	Nashville District Public Notice #86-23, dated May 1986
--U.S. Geological Survey map(s).	-	Madison, AL
--USDA Natural Resources Conservation Service Soil Survey.	-	NRCS soil survey for Madison County, AL
--FEMA/FIRM maps	-	-

--Photographs	-	-
----Aerial	-	-
----Other	-	-
--Previous determination(s).	-	-

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Not Applicable.

1-Boxes checked below shall be supported by completing the appropriate sections in Section III below.

2-For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

3-Supporting documentation is presented in Section III.F.

4-Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

5-Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

6-A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

7-Ibid.

8-See Footnote #3.

9 -To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

10-Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

**APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers**

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 14-Jul-2008

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Nashville District, LRN-2006-00144-JD3

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State : AL - Alabama
County/parish/borough: Madison
City: Huntsville
Lat:
Long:
Universal Transverse Mercator: []
Name of nearest waterbody: Betts Spring Branch
Name of nearest Traditional Navigable Water (TNW):
Name of watershed or Hydrologic Unit Code (HUC): 6030002

Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc.) are associated with the action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office Determination Date: 14-Jul-2008

Field Determination Date: 17-Apr-2008
(s): 02-Jul-2008
07-Jul-2008

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

There ☐ "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area.

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There ☐ "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

1. Waters of the U.S.**a. Indicate presence of waters of U.S. in review area:¹**

Water Name	Water Type(s) Present
Betts Spring Branch	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs
Wetlands Abutting Betts Spring Branch	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

b. Identify (estimate) size of waters of the U.S. in the review area:

Area: (m²)

Linear: (m)

c. Limits (boundaries) of jurisdiction:

based on: ☐

OHWM Elevation: (if known)

2. Non-regulated waters/wetlands:³

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:

SECTION III: CWA ANALYSIS**A. TNWs AND WETLANDS ADJACENT TO TNWs****1. TNW**

Not Applicable.

2. Wetland Adjacent to TNW

Not Applicable.

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: []
Drainage area: []
Average annual rainfall: inches
Average annual snowfall: inches

(ii) Physical Characteristics

(a) Relationship with TNW:

Tributary flows directly into TNW.
Tributary flows through [] tributaries before entering TNW.
:Number of tributaries

Project waters are [] river miles from TNW.
Project waters are [] river miles from RPW.
Project Waters are [] aerial (straight) miles from TNW.
Project waters are [] aerial(straight) miles from RPW.

Project waters cross or serve as state boundaries.

Explain:
Identify flow route to TNW:⁵

Tributary Stream Order, if known:

Order	Tributary Name
2	Betts Spring Branch

(b) General Tributary Characteristics:

Tributary is:

Tributary Name	Natural	Artificial	Explain	Manipulated	Explain
Betts Spring Branch	X	-	-	-	-

Tributary properties with respect to top of bank (estimate):

Tributary Name	Width (ft)	Depth (ft)	Side Slopes
Betts Spring Branch	20	6	2:1

Primary tributary substrate composition:

Tributary Name	Silt	Sands	Concrete	Cobble	Gravel	Muck	Bedrock	Vegetation	Other
Betts Spring Branch	X	-	-	-	-	-	-	-	-

Tributary (conditions, stability, presence, geometry, gradient):

Tributary Name	Condition\Stability	Run\Riffle\Pool Complexes	Geometry	Gradient (%)
Betts Spring Branch	stable	no	Meandering	.077

(c) Flow:

Tributary Name	Provides for	Events Per Year	Flow Regime	Duration & Volume
Betts Spring Branch	Perennial flow	20 (or greater)	year round	-

Surface Flow is:

Tributary Name	Surface Flow	Characteristics
Betts Spring Branch	Discrete and confined	Flows through large wetland complex

Subsurface Flow:

Tributary Name	Subsurface Flow	Explain Findings	Dye (or other) Test
Betts Spring Branch	Unknown	-	-

Tributary has:

Tributary Name	Bed & Banks	OHW	Discontinuous OHW ⁷	Explain
Betts Spring Branch	X	X	-	-

Tributaries with OHW⁶ - (as indicated above)

Tributary Name	OHW	Clear	Litter	Changes in Soil	Destruction Vegetation	Shelving	Wreck Line	Matted\Absent Vegetation	Sediment Sorting	Leaf Litter	Scour	Sediment Deposition	Flow Events	Water Staining	Changes Plant	Other
Betts Spring Branch	X	X	-	-	-	-	-	X	-	-	-	-	X	-	-	-

If factors other than the OHW were used to determine lateral extent of CWA jurisdiction:**High Tide Line indicated by:**

Not Applicable.

Mean High Water Mark indicated by:

Not Applicable.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Tributary Name	Explain	Identify specific pollutants, if known
Betts Spring Branch	somewhat turbid, watershed developing	-

(iv) Biological Characteristics. Channel supports:

Tributary Name	Riparian Corridor	Characteristics	Wetland Fringe	Characteristics	Habitat
Betts Spring Branch	X	wide forested wetland	X	wide forested	X

Habitat for: (as indicated above)

Tributary Name	Habitat	Federally Listed Species	Explain Findings	Fish\Spawn Areas	Explain Findings	Other Environmentally Sensitive Species	Explain Findings	Aquatic\Wildlife Diversity	Explain Findings
Betts Spring Branch	X	-	-	X	medium sized creek species	-	-	X	fish, amphibians, aquatic invertebrates, reptiles

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**(i) Physical Characteristics:****(a) General Wetland Characteristics:****Properties:**

Wetland Name	Size (Acres)	Wetland Type	Wetland Quality	Cross or Serve as State Boundaries. Explain
Wetlands Abutting Betts Spring Branch	56	riverine, wooded	good	no

(b) General Flow Relationship with Non-TNW:**Flow is:**

Wetland Name	Flow	Explain
Wetlands Abutting Betts Spring Branch	Intermittent flow.	-

Surface flow is:

Wetland Name	Flow	Characteristics
Wetlands Abutting Betts Spring Branch	Discrete and confined	-

Subsurface flow:

Wetland Name	Subsurface Flow	Explain Findings	Dye (or other) Test
Wetlands Abutting Betts Spring Branch	Unknown	-	-

(c) Wetland Adjacency Determination with Non-TNW:

Wetland Name	Directly Abutting	Discrete Wetland Hydrologic Connection	Ecological Connection	Separated by Berm/Barrier
Wetlands Abutting Betts Spring Branch	Yes	-	-	-

(d) Proximity (Relationship) to TNW:

Wetland Name	River Miles From TNW	Aerial Miles From TNW	Flow Direction	Within Floodplain
Wetlands Abutting Betts Spring Branch	2-5	2-5	Wetland to navigable waters	2-year or less

(ii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Wetland Name	Explain	Identify specific pollutants, if known
Wetlands Abutting Betts Spring Branch	-	-

(iii) Biological Characteristics. Wetland supports:

Wetland Name	Riparian Buffer	Characteristics	Vegetation	Explain
Wetlands Abutting Betts Spring Branch	-	-	X	forested 95%

Habitat for:

Wetland Name	Habitat	Federally Listed Species	Explain Findings	Spawn Area	Explain Findings	Other Environmentally Sensitive Species	Explain Findings	Aquatic\Wildlife Diversity	Explain Findings
Wetlands Abutting Betts Spring Branch	X	-	-	X	during wet months	-	-	X	species requiring seasonal standing water and saturated soils year round

3. Characteristics of all wetlands adjacent to the tributary (if any):

All wetlands being considered in the cumulative analysis:

Not Applicable.

Summarize overall biological, chemical and physical functions being performed:

Not Applicable.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Significant Nexus: Not Applicable

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/ WETLANDS ARE:

1. TNWs and Adjacent Wetlands:

Not Applicable.

2. RPWs that flow directly or indirectly into TNWs:

Wetland Name	Flow	Explain
Betts Spring Branch	PERENNIAL	Spring fed year round flow

Provide estimates for jurisdictional waters in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
Betts Spring Branch	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs	883.92	-
Total:		883.92	0

3. Non-RPWs that flow directly or indirectly into TNWs:⁸

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

Wetland Name	Flow	Explain
Wetlands Abutting Betts Spring Branch	SEASONAL	saturated year round and innundated seasonally

Provide acreage estimates for jurisdictional wetlands in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
Wetlands Abutting Betts Spring Branch	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs	-	226623.936
Total:		0	226623.936

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs:

Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:

Not Applicable.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs:

Not Applicable.

Provide estimates for jurisdictional wetlands in the review area:

Not Applicable.

7. Impoundments of jurisdictional waters:⁹

Not Applicable.

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS:¹⁰

Not Applicable.

Identify water body and summarize rationale supporting determination:

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

F. NON-JURISDICTIONAL WATERS. INCLUDING WETLANDS

If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements:

Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce:

Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR):

Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (Explain):

Other (Explain):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (ie., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment:

Not Applicable.

Provide acreage estimates for non-jurisdictional waters in the review area, that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction.

Not Applicable.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD

(listed items shall be included in case file and, where checked and requested, appropriately reference below):

Data Reviewed	Source Label	Source Description
--Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant	-	-
--Data sheets prepared/submitted by or on behalf of the applicant/consultant	-	-
----Office concurs with data sheets/delineation report	-	-
--Corps navigable waters study	-	Nashville District Public Notice #86-23, dated May, 1986
--U.S. Geological Survey map(s).	-	Madison, AL
--USDA Natural Resources Conservation Service Soil Survey.	-	NRCS Soil Survey for Madison County, AL
--FEMA/FIRM maps	-	-
--Photographs	-	-
----Aerial	-	-
----Other	-	site visit 7-2-08
--Previous determination(s).	-	-

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Not Applicable.

- 1-Boxes checked below shall be supported by completing the appropriate sections in Section III below.
- 2-For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
- 3-Supporting documentation is presented in Section III.F.
- 4-Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
- 5-Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
- 6-A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
- 7-Ibid.
- 8-See Footnote #3.
- 9 -To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
- 10-Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

**APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers**

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 18-Jul-2008

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Nashville District, LRN-2008-01100-JD2

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State :	AL -
	Alabama
County/parish/borough:	Madison
City:	Huntsville
Lat:	
Long:	
Universal Transverse Mercator:	[]
Name of nearest waterbody:	Dry Creek
Name of nearest Traditional Navigable Water (TNW):	Wheeler Lake
Name of watershed or Hydrologic Unit Code (HUC):	6030002

Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

Check if other sites (e.g., offsite mitigation sites, disposal sites, etc.) are associated with the action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION:

Office Determination Date:	18-Jul-2008
Field Determination Date	08-Jan-2008
(s):	20-Feb-2008

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

There ☐ "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area.

Waters subject to the ebb and flow of the tide.

Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There ☐ "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area:¹

Water Name	Water Type(s) Present
Unnamed Tributary of Dry Creek	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs
Wetland A Abutting UT of Dry Creek	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

b. Identify (estimate) size of waters of the U.S. in the review area:

Area: (m²)

Linear: (m)

c. Limits (boundaries) of jurisdiction:

based on: ☐

OHWM Elevation: (if known)

2. Non-regulated waters/wetlands:³

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain:

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

1.TNW

Not Applicable.

2. Wetland Adjacent to TNW

Not Applicable.

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: 62.9 square miles
Drainage area: 100 acres
Average annual rainfall: 54 inches
Average annual snowfall: 3 inches

(ii) Physical Characteristics

(a) Relationship with TNW:

Tributary flows directly into TNW.
Tributary flows through [] tributaries before entering TNW.
:Number of tributaries

Project waters are 10-15 river miles from TNW.
Project waters are 1 (or less) river miles from RPW.
Project Waters are 10-15 aerial (straight) miles from TNW.
Project waters are 1 (or less) aerial(straight) miles from RPW.

Project waters cross or serve as state boundaries.

Explain:
no

Identify flow route to TNW:⁵
Ut to Dry Creek to Indian Creek that becomes Wheeler Lake

Tributary Stream Order, if known:

Order	Tributary Name
1	Unnamed Tributary of Dry Creek

(b) General Tributary Characteristics:

Tributary is:

Tributary Name	Natural	Artificial	Explain	Manipulated	Explain
Unnamed Tributary of Dry Creek	-	-	-	X	portion along highway 53 has been staightened and maintained as grassy swale.

Tributary properties with respect to top of bank (estimate):

Tributary Name	Width (ft)	Depth (ft)	Side Slopes
Unnamed Tributary of Dry Creek	3	.5	4:1 (or greater)

Primary tributary substrate composition:

Tributary Name	Silt	Sands	Concrete	Cobble	Gravel	Muck	Bedrock	Vegetation	Other
Unnamed Tributary of Dry Creek	X	-	-	-	-	-	-	X	-

Vegetation Explained:

Tributary Name	Percent Cover	Vegetation Explained
Unnamed Tributary of Dry Creek	10	herbaceous

Tributary (conditions, stability, presence, geometry, gradient):

Tributary Name	Condition\Stability	Run\Riffle\Pool Complexes	Geometry	Gradient (%)
Unnamed Tributary of Dry Creek	stable	no	Relatively straight	.5

(c) Flow:

Tributary Name	Provides for	Events Per Year	Flow Regime	Duration & Volume
Unnamed Tributary of Dry Creek	Seasonal flow	20 (or greater)	wet months and following rain events year round.	wet months and small flows

Surface Flow is:

Tributary Name	Surface Flow	Characteristics
Unnamed Tributary of Dry Creek	Discrete and confined	braided channel in woods

Subsurface Flow:

Tributary Name	Subsurface Flow	Explain Findings	Dye (or other) Test
Unnamed Tributary of Dry Creek	Unknown	-	-

Tributary has:

Tributary Name	Bed & Banks	OHWM	Discontinuous OHWM ⁷	Explain
Unnamed Tributary of Dry Creek	X	X	-	-

Tributaries with OHWM⁶ - (as indicated above)

Tributary Name	OHWM	Clear	Litter	Changes in Soil	Destruction Vegetation	Shelving	Wrack Line	Matted\Absent Vegetation	Sediment Sorting	Leaf Litter	Scour	Sediment Deposition	Flow Events	Water Staining	Changes Plant	Other
Unnamed Tributary of Dry Creek	X	-	-	-	-	-	-	X	-	X	X	-	X	-	-	-

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction:

High Tide Line indicated by:

Not Applicable.

Mean High Water Mark indicated by:

Not Applicable.

(iii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Tributary Name	Explain	Identify specific pollutants, if known
Unnamed Tributary of Dry Creek	clear on day flow seen. Watershed includes busy highway proposed for widening to 5 lanes. Remainder is mostly wooded but proposed for commercial development	-

(iv) Biological Characteristics. Channel supports:

Tributary Name	Riparian Corridor	Characteristics	Wetland Fringe	Characteristics	Habitat
Unnamed Tributary of Dry Creek	X	wooded wide	X	at headwater is wooded wetland	X

Habitat for: (as indicated above)

Tributary Name	Habitat	Federally Listed Species	Explain Findings	Fish\Spawn Areas	Explain Findings	Other Environmentally Sensitive Species	Explain Findings	Aquatic\Wildlife Diversity	Explain Findings
Unnamed Tributary of Dry Creek	X	-	-	-	-	-	-	X	crayfish, seasonal aquatic macroinvertebrates, amphibians

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:

(a) General Wetland Characteristics:

Properties:

Wetland Name	Size (Acres)	Wetland Type	Wetland Quality	Cross or Serve as State Boundaries. Explain
Wetland A Abutting UT of Dry Creek	.49	Headwater slope, wooded	good	no

(b) General Flow Relationship with Non-TNW:

Flow is:

Wetland Name	Flow	Explain
Wetland A Abutting UT of Dry Creek	Intermittent flow.	-

Surface flow is:

Wetland Name	Flow	Characteristics
Wetland A Abutting UT of Dry Creek	Discrete and confined	discrete in wetland exits into stream channel

Subsurface flow:

Wetland Name	Subsurface Flow	Explain Findings	Dye (or other) Test
Wetland A Abutting UT of Dry Creek	Unknown	-	-

(c) Wetland Adjacency Determination with Non-TNW:

Wetland Name	Directly Abutting	Discrete Wetland Hydrologic Connection	Ecological Connection	Separated by Berm/Barrier
Wetland A Abutting UT of Dry Creek	Yes	-	-	-

(d) Proximity (Relationship) to TNW:

Wetland Name	River Miles From TNW	Aerial Miles From TNW	Flow Direction	Within Floodplain
Wetland A Abutting UT of Dry Creek	10-15	10-15	Wetland to navigable waters	-

(ii) Chemical Characteristics:

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Wetland Name	Explain	Identify specific pollutants, if known
Wetland A Abutting UT of Dry Creek	-	-

(iii) Biological Characteristics. Wetland supports:

Wetland Name	Riparian Buffer	Characteristics	Vegetation	Explain
Wetland A Abutting UT of Dry Creek	-	-	X	100 wooded

Habitat for:

Wetland Name	Habitat	Federally Listed Species	Explain Findings	Spawn Area	Explain Findings	Other Environmentally Sensitive Species	Explain Findings	Aquatic/Wildlife Diversity	Explain Findings
Wetland A Abutting UT of Dry Creek	X	-	-	-	-	-	-	X	amphibians, crayfish

3. Characteristics of all wetlands adjacent to the tributary (if any):

All wetlands being considered in the cumulative analysis:

Not Applicable.

Summarize overall biological, chemical and physical functions being performed:

Not Applicable.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Findings for: Unnamed Tributary of Dry Creek, Wetland A Abutting UT of Dry Creek
Stream and wetland provide floodwater storage for Dry Creek that has mapped floodplain and floodway. Also, carbon transport. Seasonal aquatic macroinvertebrates for foodsource for downstream waters, including TNW.

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/ WETLANDS ARE:

1. TNWs and Adjacent Wetlands:

Not Applicable.

2. RPWs that flow directly or indirectly into TNWs:

Wetland Name	Flow	Explain
Unnamed Tributary of Dry Creek	SEASONAL	small watershed, site visits revealed dry sometimes, flow others

Provide estimates for jurisdictional waters in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
Unnamed Tributary of Dry Creek	Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs	609.6	-
Total:		609.6	0

3. Non-RPWs that flow directly or indirectly into TNWs:⁸

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

Wetland Name	Flow	Explain
Wetland A Abutting UT of Dry Creek	SEASONAL	flows during wet months

Provide acreage estimates for jurisdictional wetlands in the review area:

Wetland Name	Type	Size (Linear) (m)	Size (Area) (m ²)
Wetland A Abutting UT of Dry Creek	Wetlands directly abutting RPWs that flow directly or indirectly into TNWs	-	1982.95944
Total:		0	1982.95944

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs:

Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:

Not Applicable.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs:

Not Applicable.

Provide estimates for jurisdictional wetlands in the review area:

Not Applicable.

7. Impoundments of jurisdictional waters:⁹

Not Applicable.

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS:¹⁰

Not Applicable.

Identify water body and summarize rationale supporting determination:

Not Applicable.

Provide estimates for jurisdictional waters in the review area:

Not Applicable.

F. NON-JURISDICTIONAL WATERS. INCLUDING WETLANDS

If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements:

Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce:

Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR):

Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (Explain):

Other (Explain):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (ie., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment:

Not Applicable.

Provide acreage estimates for non-jurisdictional waters in the review area, that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction.

Not Applicable.

SECTION IV: DATA SOURCES.**A. SUPPORTING DATA. Data reviewed for JD**

(listed items shall be included in case file and, where checked and requested, appropriately reference below):

Data Reviewed	Source Label	Source Description
--Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant	-	-
--Data sheets prepared/submitted by or on behalf of the applicant/consultant	-	-
---Office concurs with data sheets/delineation report	-	-
--Corps navigable waters study	-	Nashville District Public Notice #86-23, dated 8 May 1986
--U.S. Geological Survey map(s).	-	Jeff, AL
--USDA Natural Resources Conservation Service Soil Survey.	-	NRCS soil survey

--Photographs	-	-
----Aerial	-	-

B. ADDITIONAL COMMENTS TO SUPPORT JD:

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2-For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

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